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OFFICE OF PETITIONS

In re Patent of Kobayashi et al.	:	DECISION ON REQUEST
Patent No. 7,586,277	:	FOR RECONSIDERATION OF
Issue Date: September 8, 2009	:	PATENT TERM ADJUSTMENT
Application No. 10/582,931	:	AND NOTICE OF INTENT TO
Filing Date: June 14, 2006	:	ISSUE CERTIFICATE OF
Attorney Docket No. 18733/00240	:	CORRECTION

This is a decision on the petition filed on October 2, 2009, which is being treated as a petition under 37 C.F.R. § 1.705(d) requesting that the patent term adjustment indicated on the patent be corrected to indicate that the term of the patent is extended or adjusted by four hundred ninety-two (492) days.

The petition to correct the patent term adjustment indicated on the above-identified patent to indicate that the term of the above-identified patent is extended or adjusted by four hundred ninety-two (492) days is **GRANTED to the extent indicated herein**.

The first issue to be addressed is the propriety of the Office reducing the patent term adjustment by 48 days as a result of a letter received July 23, 2009.

On July 23, 2009, applicants filed a two-page issue fee transmittal letter along with a issue fee transmittal form (PTOL-85b). Both the letter and the sheet indicated the Office should charge the law firm's deposit account for the issue fee, publication fee, and an advance order of eight copies of the patent.

A review of the Electronic Acknowledgment Receipt for the July 23, 2009 papers indicates the letter was filed with a Document Description of "Post Allowance Communication - Incoming" and the PTOL-85b form was filed with a description of "Issue Fee Payment (PTO-85b)."

The letter filed July 23, 2009 was coded as a Miscellaneous Incoming Letter in the Office's computer system. As a result, the Office entered a reduction in patent term adjustment of 48 days due to delay under 37 C.F.R. § 1.704(c)(10).

37 C.F.R. § 1.704(c)(10) states a failure to engage in reasonable efforts to

[Upon] [s]ubmission of an amendment under § 1.312 or other paper after a notice of allowance has been given or mailed ... the period of adjustment set forth in § 1.703 shall be reduced by the lesser of:

- (i) The number of days, if any, beginning on the date the amendment under § 1.312 or other paper was filed and ending on the mailing date of the Office action or notice in response to the amendment under § 1.312 or such other paper; or
- (ii) Four months.

MPEP 2732 states,

37 CFR 1.704(c)(10) establishes submission of an amendment under 37 CFR 1.312 or other paper after a notice of allowance has been given or mailed as a circumstance that constitutes a failure of an applicant to engage in reasonable efforts to conclude processing or examination of an application. The submission of amendments (or other papers) after an application is allowed may cause substantial interference with the patent issue process. Certain papers filed after allowance are not considered to be a failure to engage in reasonable efforts to conclude processing or examination of an application. *See Clarification of 37 CFR 1.704(c)(10) – Reduction of Patent Term Adjustment for Certain Types of Papers Filed After a Notice of Allowance has been Mailed*, 1247 Off. Gaz. Pat. Office 111 (June 26, 2001).

MPEP 2732 indicates a “Fee(s) Transmittal (PTOL- 85B)” is a paper that will not result in a reduction under 37 C.F.R. § 1.704(c)(10). The July 23, 2009 letter was, in essence, a fee transmittal letter that did not delay issuance of the patent. Therefore, a reduction of 48 days was improper.

The second issue to be addressed is the extent to which the patent term adjustment should have been increased as a result of delay under 35 U.S.C. § 154(b)(1)(B) (“B Delay”).¹

In this case, B Delay is the number of days beginning on the day after the date three years after the national stage commenced under 35 U.S.C. 371(b) or (f) and ending on the date the patent issued.

The date of commencement is June 14, 2006. The day after the date three years after the date of commencement is June 15, 2009. The date of issuance is September 8, 2009. B Delay is 86 days which is the number of days beginning on June 15, 2009, an ending on September 8, 2009.

The period of B Delay does not overlap with any delay under 35 U.S.C. § 154(b)(1)(A). Therefore, the Office should have increased the patent term adjustment by 86 days for B Delay.

¹ Patentees do not discuss the issue of B Delay. However, in view of the fact a “Request for Recalculation of Patent Term” form was filed February 11, 2010, the Office has chosen to address the issue of B Delay as part of the instant decision.

Conclusion

The Office's entry of a 48-day reduction for the July 23, 2009 letter was improper and the reduction has been removed.

The patent term adjustment should have been increased by 86 days as a result of B Delay.

The patent listed a patent term adjustment of 444 days. In view of the prior discussion, the patent term adjustment is 578 days.

The Office will *sua sponte* issue a certificate of correction. Pursuant to 37 C.F.R. § 1.322, the Office will not issue a certificate of correction without first providing assignee or patentee an opportunity to be heard. Accordingly, patentees are given **one (1) month or thirty (30) days**, whichever is longer, from the mail date of this decision to respond. No extensions of time will be granted under 37 C.F.R. § 1.136.

The Office acknowledges submission of the \$200.00 fee set forth in 37 C.F.R. § 1.18(e). No additional fees are required.

The application is being forwarded to the Certificates of Correction Branch for issuance of a certificate of correction. The Office will issue a certificate of correction indicating that the term of the patent is extended or adjusted by **five hundred seventy-eight (578) days**.

Telephone inquiries specific to this decision should be directed to Senior Petitions Attorney Steven Brantley at (571) 272-3203.



Anthony Knight
Supervisor
Office of Petitions

Enclosure: Copy of DRAFT Certificate of Correction

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

PATENT NO. : 7,586,277 B2

ISSUE DATE : September 8, 2009

DRAFT

INVENTOR(S) : Kobayashi et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the cover page,

[*] Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 444 days.

Delete the phrase "by 444 days" and insert - by 578 days--



US007586277B2

(12) **United States Patent**
Kobayashi et al.

(10) **Patent No.:** US 7,586,277 B2

(45) **Date of Patent:** Sep. 8, 2009

(54) **ELECTRIC POWER STEERING DEVICE**

(75) **Inventors:** Hideyuki Kobayashi, Maebashi (JP);
Toru Sakaguchi, Maebashi (JP);
Takeshi Hara, Maebashi (JP); Sakae
Nejo, Maebashi (JP)

(73) **Assignee:** NSK Ltd., Tokyo (JP)

(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 444 days.

(21) **Appl. No.:** 10/582,931

(22) **PCT Filed:** Dec. 3, 2004

(86) **PCT No.:** PCT/JP2004/018425

§ 371 (c)(1),
(2), (4) **Date:** Jun. 14, 2006

(87) **PCT Pub. No.:** WO2005/058672

PCT Pub. Date: Jun. 30, 2005

(65) **Prior Publication Data**

US 2007/0120511 A1 May 31, 2007

(30) **Foreign Application Priority Data**

Dec. 16, 2003 (JP) 2003-417689

(51) **Int. Cl.**
H02P 7/00 (2006.01)

(52) **U.S. Cl.** 318/432; 318/434; 318/599;
318/811

(58) **Field of Classification Search** 318/432,
318/434, 599, 811

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,837,692 A 6/1989 Shimizu 364/424.05
5,404,960 A * 4/1995 Wada et al. 180/446

FOREIGN PATENT DOCUMENTS

EP 0 659 629 A2 6/1995

(Continued)

OTHER PUBLICATIONS

WO 2005/058672 A1, concerning International Application No.
PCT/JP2004/018425, cites the following documents in the order they
appear in the International Search Report (ISR) (with an English-
language translation thereof.

(Continued)

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(57) **ABSTRACT**

An electric power steering device changes the discontinuous non-linear characteristics in the duty ratio of the PWM signal versus motor current generated during steering wheel handle return into linear characteristics to suppress noise and provides a smooth and natural feeling steering. The electric control circuit (13) provided a current reference value calculator (22A) to calculate I_{ref} , a current controller (22B) to obtain V_{ref} , a compensation adder (25) to obtain a duty D1, and a current discontinuity compensator (24) in order to obtain a duty D2. A motor drive circuit (35) including an H bridge circuit whose upper stage FET (1) is driven by the duty D1, and whose lower stage FET (3) paired with the upper stage FET (1), is driven by the duty D2 to allow forming a continuous linear characteristic in the duty ratio of the PWM signal versus the motor current.

8 Claims, 9 Drawing Sheets

